

# SPECIFICATION

Customer :  
Applied To :  
Product Name: Dynamic Speaker  
Model Name : VS1511SL40-YS35  
Drawing No. : VS20200225015

## Signature of Appronal

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## Signature of Voice

Approved by	Checkde by	Issued by	Date



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## **CONTENTS**

- 1. Scope**
- 2. General**
- 3. Electrical and Acoustic Characteristics.**
- 4. Reliability Test**
- 5. Measurement Block Diagram & Response curve**
- 6. Structure**
- 7. Dimensions**
- 8. Packing**
- 9. Revision**

# Specification for Dynamic Speaker

Page

3/9

Revision No.

1.0

Model No. : VS1511SL40-YS35

Drawing No.

VS20200225015

## 1. Scope

This specification is applied to the dynamic speaker which is used all of the electrical acoustic product.

-- compact, rich sound

-- applications: mobile phone, PDA, notebook computer, etc. ...

## 2. General

2.1 Out-Diameter : 15x11 mm

2.2 Height : 3.5 mm

2.3 Weight : 1 g

2.4 Operating Temperature range:

-30~+60°C without loss of function

2.5 Store Temperature range:

-30~+70°C without loss of function

## 3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 1KHz)
2	Sound Pressure Level	82 dB ± 3dB 1V at 2kHz 10cm)
3	Resonance Frequency	750 Hz ± 20% in free air
		900 Hz ± 120% in 1cc Box
4	Frequency Range	750Hz ~10KHz
5	Input Power	Rated 0.5 W / Max. 0.8 W In 1cc Box
6	Distortion	<10% Max. at 1kHz 0.5W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 2V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

# Specification for Dynamic Speaker

Page

4/9

Revision No.

1.0

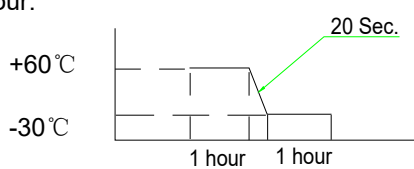
Model No. : VS1511SL40-YS35

Drawing No.

VS20200225015

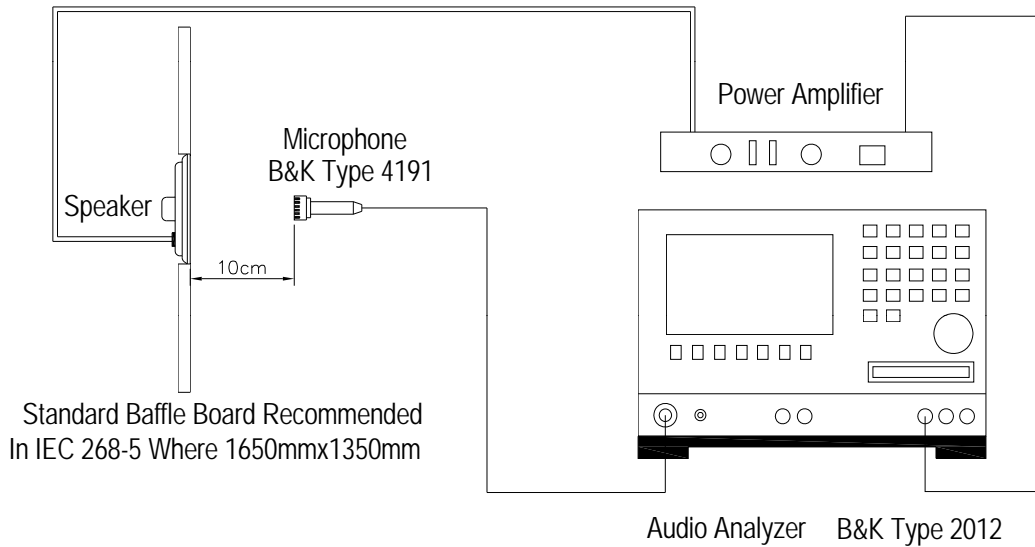
## 4. Reliability Test

After test(1~7item), the speaker S.P.L . difference shall be within  $\pm 3\text{dB}$ , and the appearance not exist any change to be harmful to normal operation (e.g. cracks,rusts,damages and especially distortion).

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $+70\pm 3\text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-30\pm 3\text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40\pm 2\text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	Thermal Shock Test	<p>After being placed in a chamber at <math>+60\text{ }^\circ\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-30\text{ }^\circ\text{C}</math> for 1 hour(1 cycle is the below diagram). After 5 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</p> 
5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hour, then placed in natural condition for 1 hour, speaker shall be measured.
6	Drop Test	The speaker when mounted in the jig which weight 85g~100g, shall with stand 6 times random drops from a height of 1.0 meter to a concrete floor faced with 5mm thick hard wood board.and be nothing mechanical damage.
7	Load test	After being applied loading white noise with input power 0.5W(2Vrms.) for 100 hours In 1cc Box, then placed in natural condition for 1 hour, speaker shall be measured.

### 5. Measurement Block Diagram & Response curve

Standard test condition of speaker



# Specification for Dynamic Speaker

Page

6/9

Revision No.

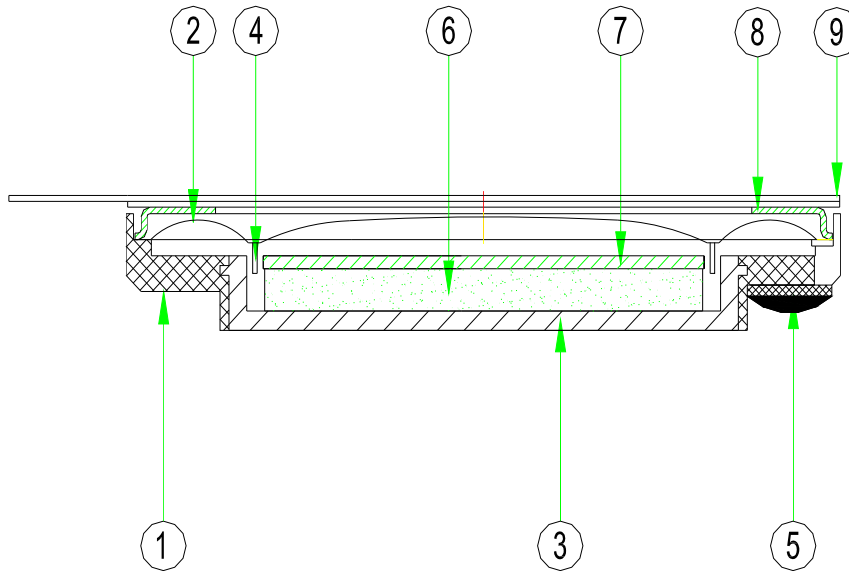
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Model No. : VS1511SL40-YS35

Drawing No.

VS20200225015

## 6. Structure



9	Gasket	1	NET180+ mash	
8	Cover	1	PC	
7	Polarity Plate	1	SPCC	
6	Magnet	1	Nd-Fe-B	
5	PIN	1	CU	
4	Voice coil	1	CU	
3	Yoke	1	SPCC	
2	cone	1	PEEK	
1	Frame	1	PBT	
No.	Part Name	Q'ty	Material	Remarks

# Specification for Dynamic Speaker

Page

7/9

Revision No.

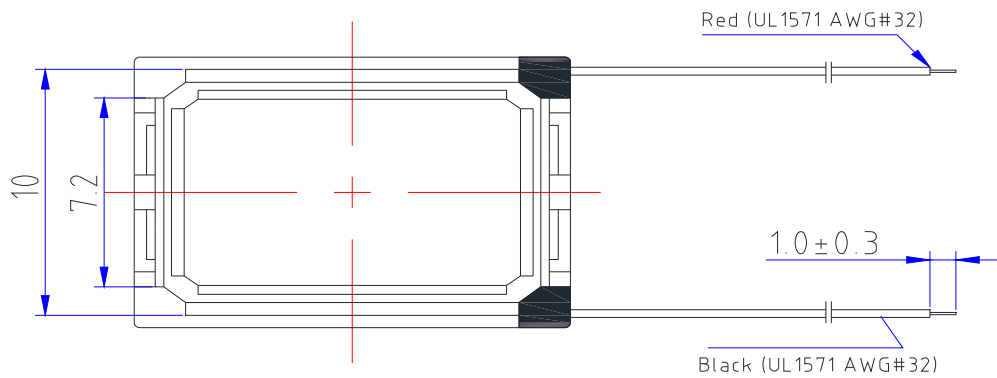
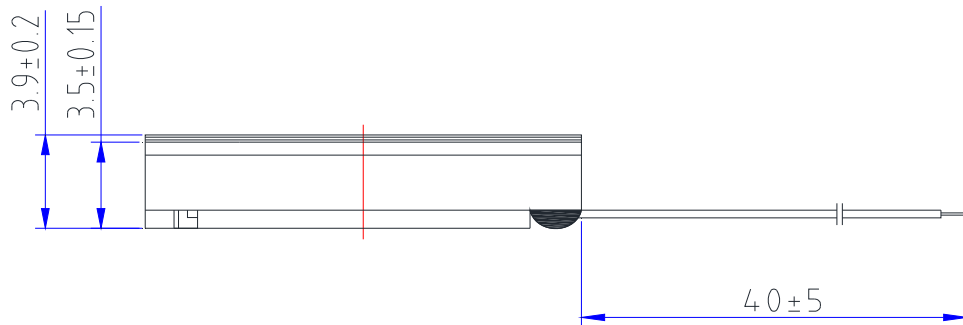
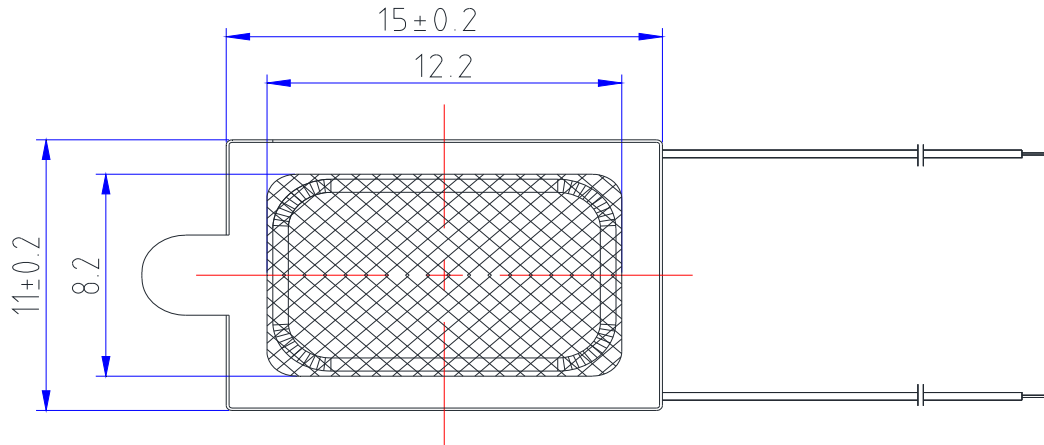
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Model No. : VS1511SL40-YS35

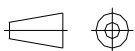
Drawing No.

VS20200225015

## 7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ±0.2

# Specification for Dynamic Speaker

Page

8/9

Revision No.

1.0

Model No. : VS1511SL40-YS35

Drawing No.

VS20200225015

## 8. Packing

A Customer Specification

